DECISION NOTICE:
Big Pine Fish Creek Bank Stabilization Project
Montana Fish, Wildlife & Parks
Region 2 Office
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DESCRIPTION OF PROPOSED PROJECT

Montana Fish, Wildlife & Parks (FWP) proposes to construct an engineered logjam along a portion of Fish Creek at Big Pine Fishing Access Site (FAS). Big Pine FAS is located 37 miles west of Missoula on Interstate 90, then 4.5 miles south of Exit 66 on Fish Creek Road (Forest Service Road 343). The site is located in Mineral County, T14N R24W Section 8. The logjam is intended to redirect the flow of the creek in order to reestablish and protect the highly erodible soils that surround the base of the "Big Pine." The Big Pine is the largest known ponderosa pine tree in Montana, standing nearly 200 feet tall and measuring over 6 feet in diameter.

The migrating channel of Fish Creek sustained high water flows during the spring of 2008 that contributed to the erosion of the stream bank between Fish Creek and the Big Pine. This erosion has threatened the stability and health of the large tree leaving only a few feet of bank remaining and exposing a small amount of the tree's root structure. The purpose of the proposed project is to construct a diversion structure to protect the Big Pine that blends with the visual aesthetics of the site and avoids or minimizes negative impacts to the creek channel, local fish and wildlife populations and riparian habitat.

This project will utilize native green and aged woody debris to construct the jam. The construction of a logjam in this location is intended to lessen the rate and effects of erosion in order to preserve the large tree for the enjoyment of future visitors to the site. Fluvial material from the creek channel will be used to reestablish bank between the debris jam and existing stream bank. Reestablished bank will be revegetated with appropriate native vegetation. This project is expected to take 1 to 2 weeks to complete and is intended to take place by spring of 2009. The estimated cost for the project is $10,000 and will be funded through FWP's Fishing Access Site Program.

Because the tree itself is located on USDA Forest Service administered land adjacent to FWP's Big Pine FAS, this project will be a cooperative venture between both agencies. FWP will coordinate the project, including design and construction. The Forest Services' role in the project will be that of partner and land steward.

Alternative A: No Action

If no action is taken, the unaltered creek channel will continue to focus the majority of spring flows directly at the bank adjacent to the Big Pine. The soil around the tree would likely continue to erode, exposing additional root structure and jeopardizing the stability of the tree. If erosion continued, the tree could succumb to stresses associated with a lack of soil and/or topple due to a lack of support. The status quo would be maintained at Big Pine FAS by FWP.

Alternative B: Creek Bank Stabilization Using Riprap

Under this alternative, a blanket of rock riprap would be placed along the stream bank to fortify the bank directly adjacent to the tree. This method would provide stabilization to the stream bank but would detract from habitat and aesthetic values due to lack of vegetation and a "natural" look. This method would not reestablish bank adjacent to the tree nor would it redirect creek flows, which could subject the riprap to being washed away over time. A short reach of riprap is also highly susceptible to long-term

failure because areas with active channel migration, as is the case with Fish Creek, are highly likely to cut around it. This alternative was eliminated from further analysis in the EA due to lack of habitat and aesthetic values as well as lack of bank reestablishment.

Alternative C: Creek Bank Stabilization Using a Native Green and Aged Woody Debris Jam to Redirect Creek Flow

Under this alternative, a logjam would be constructed from native green and aged woody debris. The logjam would be established in order to redirect creek flows from the bank adjacent to the tree. In order to provide stability and longevity to the life of the "big pine," existing fluvial fill would be used between the existing bank and the debris structure. This method would provide for a relatively "natural-looking" stabilization approach that would be aesthetically pleasing for visitors to the site and maintain some riparian habitat values. Replanting native riparian vegetation in the stabilization project would provide additional bank stability and reduce the likelihood of structure failure. The final plans and specifications for the project will be developed by a private consultant working in consultation with FWP and US Forest Service staff. All state and federal permits will be obtained by FWP. The project construction will be completed by a private contractor skilled in stream work and directed by FWP and US Forest Service staff. The private contractor will be selected in accordance with the State's purchasing procedures.

PUBLIC PROCESS AND COMMENT

A draft EA for the proposed project was made available for public review and comment from November 5, 2008 through 5:00 pm December 5, 2008. Legal notices were published once in each the *Missoulian*, *Helena Independent Record, and Mineral Independent.* The EA was posted on the FWP website, and a statewide news release issued. A list of interested parties was generated, which consisted of neighbors, conservation groups, Montana state legislators, and federal, state and county departments or agencies. 10 of those included on the interested parties list were mailed a hard copy of the EA, 10 were e-mailed a copy of the EA, and 25 were notified of the EA's availability via an informational postcard. Additionally, the *Missoulian* elected to write a front-page feature story and a separate editorial opinion piece about the project.

FWP received 27 comments (18 by e-mail, 7 by mail and 2 by phone), with 24 in favor of the project, 2 neutral, and 1 not supportive of the project (this comment did not provide reason why). The following is a summary of comments received and response from FWP where applicable.

1. **Many of the comments received offered general support for the project. The following are representative.**
   - "I support your effort to stabilize the streambank of Fish Creek near the Big Pine"
   - "I think the Big Pine Stabilization project is a great idea and I applaud your preservation efforts...FWP's intent for the site is very clearly communicated and easy to follow."
   - "I am very much in favor of your saving the Big Pine tree."
   - "It is a good idea to protect the Big Pine and it is definitely worth the time, money and effort."

2. **Comments in support of the project provided a range of reasons for support. The following are representative.**
   - "The Big Pine is a local landmark that I visit with students and camp at with family and friends."
   - "Just think of the amount of carbon dioxide it (the tree) uses in one day." "It (the project) will also help improve fish habitat, always a good thing as well."
   - "The Ponderosa Pine is our state tree and this is our largest specimen and thus there should be an effort to save the tree."
   - "This tree is a natural monument and needs to be preserved."

- "We are pleased with your decision to take appropriate action to save a Mineral County landmark and popular tourist attraction, and encourage you to proceed without delay. Though the "Big Pine" is a living plant and thus cannot be expected to last forever, we should take every opportunity available to extend its presence in our midst to the maximum."
- "The Big Pine is an inspiration to people. It causes people to reflect on history that has occurred during the tree's long life. It is also worth protecting because there are so few large old trees left to see in Montana. Children develop an interest and respect for nature by being taken to see beautiful old trees." "Also, Montana needs places with exceptional natural wonders throughout the state – to make Montana worth tourist's time to visit here."

3. **Some comments were received inquiring about whether FWP would solicit donations or private monies to fund the project.**
   - "Please let me know if you will be looking for private dollars to fund this effort, or if you have the money set aside."
   - "Will there be any fund raising efforts for the public to contribute?"
   - "If necessary you can always go to the public for donations to help save Big Pine."
   - "If money becomes and issue, I am sure a lot of people will donate whatever it takes to save this tree."

   FWP Response: FWP proposed the project after assuring that funding was available internally. As a result, FWP had not discussed solicitation of private funding for the project. FWP sincerely appreciates the public's willingness to support the project with funding, however FWP has decided to utilize internal funding available through the Fishing Access Site (FAS) program.

4. **Some comments shared questions and thoughts regarding specific elements of the EA document itself and/or implementation of the project.**
   - "I thought it odd that the Item 11.c of the Environmental Checklist showed "None" as impact. Since providing a natural looking appearance is one of the main reasons of using the log debris versus a more practical rock rip-rap, there should be at least a "Minor" impact. Also it seems there should be some positive impact for Section 12. This may not be inventoried on the National Register of Historic Places, but it must be a Cultural Resource. Why else would these measures be taken to protect it. I don't suppose it's critical to the project, but I imagine some more positive impacts could be documented and not have so many "None" marks on the environmental checklist. Evidently the analysis writer doesn't recognize that impacts can be positive."

   FWP Response: We agree that *some impacts associated with the proposed project are anticipated to be positive and could be further documented in the analysis. Therefore, the impact category for checklist item 11c in the Draft EA is hereby amended from "None" to "Minor." The associated comment is now amended to read "This project is likely to improve the quality of tourism and recreation opportunities by preserving the Big Pine as a focal point of the Big Pine site." Additionally, the impact associated with checklist item 12b of the draft EA is hereby amended to read "Minor" instead of "None," with the addition of a new comment to read: "12b:Stabilizing and reestablishing the stream bank may extend the lifespan of the Big Pine, which is an important forest resource legacy and public interpretive display about forest resources."*

   - "Because of the unpredictability of stream flows and frequency of unexpected consequences as a result of hydraulic changes caused by stream modification projects, we encourage "overkill" in stability considerations."

FWP Response: *An objective of the proposed project is to consider both stability and longevity of the logjam in both design and implementation phases of the project. This is aimed at minimizing unpredictability and unexpected consequences. FWP will consider "overkill" in project implementation where it is reasonable, affordable and likely to provide benefit.*

- "Bank protection structures will have direct effects on river processes because they modify river channels and are designed to limit or prevent natural channel processes along the length of the structure. Upstream and downstream effects are likely. Your stated purpose of minimizing negative impacts is not sufficient for a resource agency that should be setting the standard for instream activities. Rather, your objective should be at least to: use all practical measures to avoid any negative impact, minimize any unavoidable impact, and compensate for any residual damage, i.e. no net loss. Better yet would be to have the purpose of protecting the tree and enhancing habitat."

- "I don't see it explicitly stated that the filled area between the logjam and existing bank will be replanted. It seems only to say that native vegetation will be used in the construction of the logjam. Will the area be replanted using appropriate native vegetation?"

FWP Response: *The objectives of avoiding negative impacts, minimizing negative impacts that are unavoidable, and reclaiming areas that are disturbed as a result of the project are inherent in the proposed project. Permitting procedures associated with the Federal Clean Water Act (404 Permit), the Montana Stream Protection Act (124 Permit) and the Short-term Water Quality Standard for Turbidity Related to Construction Activity (318 Authorization) require those objectives as conditions of permit. These permits also require that disturbed stream banks and adjacent areas created by construction activities be protected with erosion control measures and replanted with native vegetation. A list of required permits was listed in the Draft EA and have since been obtained from the issuing agencies. FWP will comply with all conditions required by those permits and authorizations.*

- "Bank stabilization projects almost always have the potential to merely displace the erosion downstream. Please engineer your project so that it does not do so. A necessary prerequisite to the project should be an upstream and downstream reach assessment to better understand the potential impacts of the project and best approach to addressing the stated need while avoiding impacts."

FWP Response: *Erosion concerns have been considered in both the EA and project design with the intent of minimizing displacement of erosion to downstream locations. These considerations will continue through the implementation phase of the project. The project design considers upstream and downstream impacts related to the project. Additionally, FWP is required to obtain a 100-year Floodplain Development Permit with the Mineral County Floodplain Administrator. This permit will also further evaluate floodplain impacts related to upstream and downstream impacts. FWP will not proceed with the project until all required permits have been obtained.*

- "Why is fluvial material from the stream channel being used to fill between the debris jam and the existing stream bank? Doing so will accelerate to some degree the movement of material down from upstream areas."

FWP Response: *The proposal to utilize fluvial material from the stream channel is two-fold. First, the source is immediately adjacent to the project area. This will minimize the amount of excavator travel in the stream and within riparian areas that could be required to transport materials that were*

obtained off-site. In addition, utilizing a local source of material will minimize costs associated with transportation of materials and contractor costs associated with loading and unloading of materials. Second, utilizing native material in reestablishing the stream bank will be more consistent with the existing substrate than using material from an external source. The amount of material required will be relatively minimal and the use of material from the stream should help reduce pressure on the logjam and reestablished stream bank. Although there may be some acceleration of movement of material downstream, associated impacts are expected to be minimal.

- "If your one ELJ (Engineered Log Jam) fails, you may lose the Ponderosa that you are trying to save. Thus, the moral to the story, please be careful with ELJs. I hope you have someone on staff or elsewhere in Montana government that has experience with ELJs and know how to install them for maximum benefit."

FWP Response: This project proposal has included input from a Forest Service hydrologist, Forest Service and FWP Fisheries Biologists, Environmental Consultant and other resource professionals working for both agencies. These individuals have a considerable amount of knowledge and experience in utilizing woody debris in streams for bank restoration and habitat enhancement purposes. Additionally, the contractor selected for implementing the project will have experience working with woody debris in streams. The collaborative approach used in the planning phase will continue through the implementation phase of the project.

DECISION

Based on the analysis in the Draft Environmental Assessment (EA) and the applicable laws, regulations and policies, I have determined that this action will not have a significant effect on the natural or human environment. Therefore an Environmental Impact Statement will not be prepared. It is my decision to implement Alternative C, and construct a logjam to redirect the flow of the creek in order to reestablish and protect the highly erodible soils that surround the base of the Big Pine. This project is a cooperative effort between FWP, as the project coordinator and the USDA Forest Service, as a partner and land steward. As a result, the Forest Service has issued an independent decision memo that parallels the conclusion provided in this decision notice. By notification of this Decision Notice, the Draft EA is hereby made the Final EA, along with the amendments described in FWP responses contained in this Decision Notice. The Draft EA and this Decision Notice may be viewed at or obtained from Montana Fish, Wildlife & Parks at the above address. The Draft EA is still available for review at http://fwp.mt.gov/publicnotices/notice_1927.aspx.

12/16/08

Mack Long **Date**
Regional Supervisor